

2

December 5, 1963

Dr. Arthur B. Callahan
Bio-Dynamics, Incorporated
1 Main Street
Cambridge, Massachusetts

Dear Dr. Callahan:

I am returning herewith the completed questionnaire which accompanied your letter of October 21.

Since you have perhaps not seen it, I am also enclosing a copy of the report of the President's Science Advisory Committee on "Science, Government, and Information" which I am sure you will find of interest in relation to your study.

Sincerely yours,

Joshua Lederberg
Professor of Genetics

A.B. Callahan

Questionnaire

1. At how many domestic scientific meetings have your NASA sponsored research results been presented? 9-10
2. At how many foreign scientific meetings have your NASA sponsored research results been presented? 3-4
3. At how many specialized conferences and symposia have your NASA sponsored research results been presented? 3-4
4. Are financial arrangements with NASA adequate for attendance at sufficient foreign and domestic meetings?

Domestic Meetings	
yes	no
✓	

Foreign Meetings	
yes	no
✓	

5. In how many books have the results of your NASA sponsored research appeared? 2-3
6. In what commercial publications (e. g. , magazines, newspapers, house organs, etc.) have results of your NASA sponsored research appeared?
7. In what scientific journals? Science
Proc Natl Acad Sci
8. Would you please indicate the title, reference, and estimated number of reprint requests of your papers published in open literature under NASA sponsorship. (Include domestic and foreign scientific journals.)

(8 continued) <u>Title</u>	<u>Reference</u>	<u>Requests for Reprints</u>
Microenvironments for Life on Mars	Proc. Nat. Acad. Sci. 48: 1473-75.	125

9. Of the total number of requests for reprints received is it possible to estimate the number which originated in specific disciplines, e. g., chemistry, physics, medicine, biology, etc. *No*

10. What is the estimate of the average time lag between submission of a paper and publication?

<u>Journal</u>	<u>Time Lag in Months</u>						
	3	6	9	12	15	18	24
<u>Science</u>	—	✓	—	—	—	—	—
<u>PNAS</u>	✓	—	—	—	—	—	—
<u>Cosmos - Space Science</u>	—	—	—	—	✓	—	—

11. Outside of formal methods of scientific communications mentioned what additional techniques of scientific information dissemination do you consider important?

personal consultations
technical reports } *ASTIA*
NASA

12. Do you consider these additional techniques more important, equally important or less important than the formal techniques listed?

equally

13. Do you apply other NASA or USAF research development (theories or techniques) to your own research? (Could you give brief examples?)

Instrumentation
chemistry of fluor
planetary science

14. Did the essential idea or techniques used in your research effort originate specifically from space program information?

No

15. If answer to above is yes, could you give specific instance of origin (e. g., journal, report, etc.)

16. Is the intent of your research effort directed specifically to the space program or do you feel the results will have general application in your academic discipline?

about 50:50

17. In what areas do you feel the research results would have use?

*Biochemical instrumentation
Research use of computers*

Origin & synthesis of life

18. With how many colleagues in your institution do you discuss your work? 20 How many hours per week? 30

19. Have these colleagues contributed sources of information with which you were unfamiliar and which contributed to your research?

Repeatedly yes, _____ no.

20. How often during the past year have you traveled to other institutions to discuss informally with colleagues your mutual work? *I have a ^{personal} policy against extensive travel w/ unreasonable demands on time.*

21. How would you describe your library facility? (circle appropriate description) poor - fair - adequate - good - excellent.

in relation to actual needs

probably "good" compared to many others

22. Would you please indicate with a check which of the following journals you regularly use as current information sources.

*accidentally
no
but should*

- ☒ Review of Scientific Instruments
- ☒ Journal of Chemical Physics
- ☒ Astrophysical Journal
- ☒ Physical Review
- ☒ American Rocket Society Journal
- ☒ Journal of Aerospace Sciences
- ☒ Journal of Mathematical Analysis and Application
- ☒ Nature
- ☒ Journal of American Mathematical Society
- ☒ Journal of Geophysical Research
- ☒ Electronics
- ☒ Proceedings of the IRE
- ☒ Science
- ☒ Plant Physiology
- ☒ American Journal of Physiology
- ☒ American Journal of Botany
- ☒ Journal of American Chemical Society
- ☒ Aerospace Medicine
- ☒ Annual Review of Psychology
- ☒ EEG Journal
- ☒ NASA Documents (including Scientific and Technical Aerospace Reports abstract journal).

+ indirectly - my principally colleague made this regularly